

CS-21,295

U.S. Serial No. 10/643,986

- 7 -

REMARKS

Entry of the foregoing, and consideration of the subject matter identified in caption, as amended pursuant to 37 C.F.R. §1.111, and in light of the remarks which follow are respectfully requested.

By the above amendments, the Specification has been revised to provide the trademark requested. In addition, claims 16-20 have been canceled without prejudice.

Turning to the Official Action, the Specification has been objected to for the reasons set forth at page 2 of the Official Action. This objection has been obviated by the above amendment where the trademark has been identified as such. Thus, withdrawal is respectfully requested.

Claims 19 and 20 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This objection has been rendered moot by above amendment, where claims 19 and 20 have been canceled. Thus, withdrawal of this rejection is respectfully requested.

Claim 16 stands rejected under 35 U.S.C. §102(b) as allegedly being obvious over Hurwitt et al (U.S. Patent No. 5,130,005). This rejection has been rendered moot by the above amendment, where claim 16 has been canceled. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 1, and 3-8 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dunlop et al (U.S. Patent No. 6,030,514) in view of Marton et al (U.S. Patent Application Publication 2003/0059640 A1). This rejection is traversed for the following reasons.

The present invention relates to a method of dry treating a sputtering target to achieve an enhanced finish on the surface that effectively reduces burn-in time of the target.

CS-21,295

U.S. Serial No. 10/643,986

- 8 -

Dunlop et al relates to a method of reducing sputtering conditioning time or so called burn-in and a target assembly thereof. Col. 1 lines 6-9. Based on the comments in the Official Action, it appears that this document has been applied as the primary reference for the disclosure of "pretreating a sputter target assembly and then preparing and packaging the assembly to be subsequently used in a sputtering process . . .". See Official Action at page 5. Thus, it appears that this document has been applied for the purported preparation of the target surface prior to packaging. However, as recognized by the Examiner, Dunlop et al does not disclose any of the steps claimed in the present invention. See Official Action at page 5.

Marton et al relates to shape memory and superelastic alloys and vacuum deposited metallic materials. Specifically, Marton et al is directed to nickel-based alloys fabricated by vacuum deposition technologies and which exhibit shape memory effect and/or superelastic behavior. Page 1, second paragraph. Marton et al has been relied on for allegedly disclosing the processing conditions of the target conditioning. See Official Action at page 6. Marton et al, however, does not teaches or fairly suggests conditioning dedicated regions of a sputter target surface, nor does it disclose the conditioning of the system as a separate and discrete step, prior to performing a deposition process. In this regard, Marton et al discloses the entire target as being exposed to the plasma, with a dummy substrate therein. See page 7, paragraph 74. Furthermore, the exposure to the plasma during the target conditioning is a step within the deposition process. See page 7, paragraph 67 et al. Thus, clearly one of ordinary skill in the art would not look to combine the disclosures of Dunlop et al with that of Marton et al, due to the disparate nature of the disclosures (i.e., the preparation of the target). Therefore, for at least the foregoing reasons, withdrawal of this rejection is in order and it is respectfully requested.

CS-21,295

U.S. Serial No. 10/643,986

- 9 -

Claims 1 and 10-15 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dunlop et al in view of Marton et al and further in view of Ding et al (U.S. Patent Application Publication 2003/0089601). This rejection is traversed.

Dunlop et al and Marton et al have been discussed in detail above. Ding et al relates Ding et al disclose an array of auxiliary magnets positioned along sidewalls of a magnetron sputter reactor on a side towards the wafer from the target. See Abstract. Ding et al has been applied for allegedly disclosing a sputtering apparatus including a rotating magnetron system "comprises less than 180 degrees". See Official Action at page 7.

Ding et al simply does not cure the deficiencies in either of Dunlop et al or Marton et al. Specifically, Ding et al does not disclose or fairly suggest conditioning of the target as a separate and discrete step, prior to shipping the target the deposition step. Thus, even if combined in the manner suggested, one of ordinary skill in the art would not arrive at the claimed invention.

Claims 9 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dunlop et al in view of Morton et al and further in view of Arai et al (U.S. Patent No. 6,187,457). This rejection is traversed for the following reasons.

Dunlop et al and Morton et al have been discussed above. Arai et al relates to an electroluminescent light emitting device using an organic compound in which an electron injecting electrode for supplying electrons to a light emitting layer is provided thereon with a sealing film. See Col. 1, lines 5-11. Arai et al has been applied for allegedly disclosing the use of FeNdB magnet. However, Arai et al does not even concern a magnetic component to be utilized in a sputtering system, much less cure the deficiencies in Dunlop et al and Morton et al. Thus, withdrawal of this rejection is respectfully requested.

CS-21,295

U.S. Serial No. 10/643,986


- 10 -

Claim 17 stands rejected under 35 U.S.C. §103(a) as allegedly being obvious over Hurwitt et al (U.S. Patent No. 5,130,005) in view of Ding et al; and claim 18 stands rejected under §103(a) as allegedly being obvious over Hurwitt et al, and further in view of Arai et al (U.S. Patent No. 6,187,457). These rejections have been rendered moot by the above cancellation of claims 17 and 18.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

If there are any questions concerning this paper, or the application in general, the Examiner is invited to telephone the undersigned at his or her earliest convenience.

Respectfully submitted,



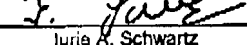
Iurie A. Schwartz
Attorney for Applicant
Reg. No. 43,909

Praxair, Inc.
39 Old Ridgebury Road
Danbury, CT 06810-5113
Phone: (203) 837-2115

Date: May 29, 2007

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (571) 273-8300 on May 29, 2007. Typed or printed name of person signing this certificate.

Signature: 
Iurie A. Schwartz